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Serial Number Form PTO-1449 Docket 09/655,498 200114 TO 3600 MAIL ROOM INFORMATION DISCLOSURE **Applicant** STATEMENT BY APPLICANT Donald C. D. Chang, et al. Use several sheets if necessary) Filing Date Group RADEMA' September 5, 2000 3662

U.S. PATENT DOCUMENTS

| | | | | | |
|-------------|------------|-------------|----------------------|----------|-------------|
| | Document | Date | Name | Class | Sub |
| | Number | | | | Class |
| <i>Y</i> \0 | 5,485,485 | 1/1996 | Briskman et al. | 375 | 200 |
| | 3,544,995 | 12/1970 | Bottenburg et al. | 343 | 6 |
| | 5,969,674 | 10/1999 | Von Der Embse et al. | 342 | 357.16 |
| | 5,644,572 | 7/1997 | Olds et al. | 370 | 324 |
| | 3,384,891 | 5/1968 | Anderson | 343 | 100 |
| | 4,819,227 | 4/1989 | Rosen | 370 | 75 |
| | 5,278,863 | 1/1994 | Briskman | 375 | 1 |
| | 5,319,673 | 6/1994 | Briskman | 375 | 1 |
| | 5,592,471 | 1/1997 | Briskman | 455 | 52.3 |
| | 5,864,579 | 1/1999 | Briskman | 375 | 200 |
| | 5,233,626 | 8/1993 | Ames | 375 | 1 |
| | 6,138,012 | 10/2000 | Krutz et al. | 455 | 427 |
| | 09/576,652 | 5/22/00 | Hagen et al. | | |
| | 09/584,012 | 5/30/00 | Chang et al. | | |
| | 09/576,648 | 5/22/00 | Yung et al. | | |
| | 09/644,225 | 8/21/00 | Hagen et al. | — | |
| | 09/587,960 | 6/6/00 | Yung et al. | T | |
| | 09/587,759 | 6/6/00 | Yung et al. | | |
| | 09/271,997 | 3/18/99 | Chang et al. | , | |
| | 09/209,062 | 12/10/98 | Yung et al. | | |
| | 09/550,505 | 4/17/00 | Chang et al. | | |
| | 08/803,937 | 2/21/97 | Chang et al. | | |
| | 09/669,095 | 9/25/00 | Yung et al. | | |
| | 09/655,041 | 9/5/00 | Chang et al. | | |
| | 08/803,937 | 7/21/97 | Chang et al. | , | |
| | 09/611,753 | 7/7/00 | Chang et al. | | |
| | 09/652,862 | 8/31/00 | Chang et al. | | |
| 1 | 09/644,224 | 8/21/00 | Chang et al. | | |
| 2/0 | 09/661,725 | 9/14/00 | Chang et al. | | |

FOREIGN PATENT DOCUMENTS

| | Document Number | Date | Name | Class | Sub Class |
|--|--------------------|------|------|-------|--------------|
| | | | | | |

OTHER DOCUMENTS (including Author, Title, Date, Pertinent Pages, etc.)

| Examiner | Ν. | 10 | Date Considered 3/24/03 |
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| Form PTO-1449 | Serial Number | Docket |
|-----------------------------------|---------------------------|--------|
| ·\ | 09/655,498 | 200114 |
| INFORMATION DISCLOSURE | Applicant | |
| STATEMENT BY APPLICANT | Donald C. D. Chang et al. | |
| (Use several sheets if necessary) | Filing Date | Group |
| | September 5, 2000 | 3662 |

U.S. PATENT DOCUMENTS

| | Document | Date | Name | Class | Sub |
|------|-----------|----------|----------------------|-------|--------|
| | Number | | | | Class |
| 2/10 | 5,444,450 | 8/22/95 | Olds, et al. | 342 | 357 |
| | 3,544,995 | 12/1/70 | Bottenberg, et al. | 342 | 46 |
| | 3,384,891 | 5/1/68 | Anderson | 342 | 357 |
| | 5,387,916 | 2/7/95 | Cohn | 342 | 44 |
| | 4,897,661 | 1/30/90 | Hiraiwa | 342 | 457 |
| | 5,006,855 | 4/9/91 | Braff | 342 | 357 |
| | 4,359,733 | 11/16/82 | O'Neill | 343 | 6.5 |
| | 4,161,734 | 7/17/79 | Anderson | 342 | 352 |
| | 4,613,864 | 9/23/86 | Hofgen | 343 | 357 |
| | 4,994,809 | 2/19/91 | Yung, et al. | 342 | 108 |
| | 5,099,245 | 3/24/92 | Sagey | 342 | 357 |
| | 5,410,314 | 4/25/95 | Frush, et al. | 342 | 26 |
| | 5,525,995 | 6/11/96 | Benner | 342 | 90 |
| | 4,161,730 | 7/17/79 | Anderson | 342 | 352 |
| | 2,470,787 | 5/24/49 | Nosker | 342 | 12 |
| | 5,126,748 | 6/30/92 | Ames et al. | 342 | 353 |
| | 5,920,284 | 7/6/99 | Victor | 342 | 357.01 |
| | 5,944,770 | 8/31/99 | Enge et al. | 701 | 707 |
| | 5,945,948 | 8/31/99 | Buford et al. | 342 | 457 |
| | 5,969,674 | 10/19/99 | Von der Embse et al. | 342 | 357.17 |
| | 5,111,209 | 5/5/92 | Toriyama | 342 | 357 |
| NO | 5,739,785 | 3/14/98 | Allison et al. | 342 | 357 |

FOREIGN PATENT DOCUMENTS

| ۵ | Document Number | Date | Name | Class | Sub Class |
|---------|--------------------|----------|-------------------------------------|-------|--------------|
| ₩, | EP 0 335 558 | 4/10/89 | McCaughan et al. | | |
| | JP3-291584 | 12/20/91 | Toyota | - | |
| | JP 09026328 | 01/28/97 | Tokimec Inc. | | |
| | JP 2-28580 | | Mitsubishi Electric Corp (Yamazaki) | | |
| | JP 4-27887 | 1992 | | | |
| | JP 07146995A | 06/06/95 | Nippondenso Co. LTD (Fumiaki) | | |
| \prod | JP 08015405A | 01/19/96 | NEC Corp (Toshiaki) | | |
| | JP 09113600A | 05/02/97 | Aqueous Res:KK (Hiroki) | Į | |
| | JP 10090391A | 04/10/98 | Sharp Corp (Koichi, et al.) | | |
| П | GB 2 306 827 A | 05/07/97 | Intl Mobile Satellite Org | | |
| W | GB 2 271 902 A | 10/20/93 | Caterpillar | | |

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TO 3600 MAIL ROOM

Form PTO-1449 Donald C. D. Chang, et al. Serial No. 09/655,498

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OTHER DOCUMENTS (including Author, Title, Date, Pertinent Pages, etc.)

| W | Teles J et al.: "Overview of TDRSS" Orbit Determination and Analysis. PSD Meeting, Cospar Technical Panel on Satellite Dynamics, 13 th Cospar Scientific Assembly, Hamburg, Germany, July 11-21, 1994, Advances in Space Research, pp. 67-76 |
|----------|---|
| | Bricker, P et al.: "Integrated Receiver for NASA Tracking and Data Relay Satellite System", MILCOM 90. A new Era, 1990 IEEE Military Communications Conference, Monterey, CA, USA, Sept. 30 - Oct. 3, 1990, page 1-5 |
| | Dunham, J B, et al.: "Onboard Orbit Estimation with Tracking and Data Relay Satellite System Data", Journal of Guidance, Control, and Dynamics, July-August 1983, USA, Vol. 6 NR.4, Pages 292-301 |
| | K. H. Bethke, "A Novel Noncooperative Near-Range Radar Network or Traffic Guidance and Control on Airport Surfaces", IEEE Transactions on Control Systems Technology, Vol. 1, No. 3, Sept. 1993 |
| nys | Doc 9524 FANS/4-WP/76, International Civil Aviation Organization, Special Committee on Future Air Navigation Systems, Fourth Meeting, Montreal, 2-20 May 1988, Report, pp. 3.2B-2 & 3.2B-3 |
| Examiner | N. Vo Date Considered 3/24/03 |

PTO-144/Feb93

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| | 09/655,498 | PD-200114 |
| INFORMATION DISCLOSURE | Applicant | - |
| STATEMENT BY APPLICANT | DONALD C. D. CHANG ET AL. | |
| (Use several sheets if necessary) | Filing Date | Group |
| | September 5, 2000 | 3662 |

U.S. PATENT DOCUMENTS

| | Document Number | Date | Name | Class | Sub Class |
|--------------|--------------------|----------|------------------------------|-------|--------------|
| ~ V 0 | 5,949,766 | 09/07/99 | Ibanez-Meier, Rodrigo et al. | | |
| NO | 6,151,308 | 11/21/00 | Ibanez-Meier, Rodrigo et al. | | |
| - | : | | | | |
| | | | | | |

FOREIGN PATENT DOCUMENTS

| | Document Number | Date | Name | Class | Sub Class |
|--|--------------------|------|------|-------|--------------|
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | ` |

OTHER DOCUMENTS (including Author, Title, Date, Pertinent Pages, etc.)

| No | | POLARIZED V | Marcoux, M. Forest, L. Martins-Camelo, "A CIRCULARLY VAVEGUIDE ARRAY FOR LEO SATELLITE COMMUNICATIONS", IEEE1999 AP-S International Symposium, June 1999 | | |
|----------|--|-------------|--|--|--|
| 2/0 | | STRATOSPHE | iura, Y. Hase, "ONBOARD DBF ANTENNA FOR ERIC PLATFORM", pp. 125 - 128, IEEE Conference on Phased and Technology, California, May 21-25, 2000 | | |
| NO | Yokosuka Research Park, "THE FIRST STRATOSPHERIC PLATFORM SYSTEMS WORKSHOP", pp 1 - 216, May 12-13, 1999 | | | | |
| Examiner | Ν. | Vo | Date Considered 3/24/03 | | |

PTO-1449/Feb93



| Form PTO-1449 | Serial Number: 09/655,498 | Docket PD-200114 |
|---|------------------------------------|---------------------|
| INFORMATION DISCLOSURE STATEMENT BY APPLICANT | Applicant DONALD C. D. CHANG ET.AL | •• |
| (Use several sheets if necessary) | Filing Date September 5, 2000 | GAU 3662 |

U.S. PATENT DOCUMENTS

| | | Document Number | Date | Name | Class | Sub Class |
|-----|---|--------------------|----------|----------------|-------|--------------|
| W/0 | | 4,635,063 | 01/06/87 | Chang et. al | 342 | 380 |
| | | 5,077,562 | 12/31/91 | Chang et. al | 342 | 368 |
| | | 5,612,701 | 03/18/97 | Diekelman | 342 | 354 |
| | | 5,973,647 | 10/26/99 | Barrett et. al | 343 | 713 ' |
| | | 6,111,542 | 08/29/00 | Day et al. | 342 | 359 |
| | · | 6,147,658 | 11/14/00 | Higashi et. al | 343 | 853 |
| | | 5.017,927 | 05/21/91 | Agrawal et. al | 342 | 371 |
| N/0 | | 5,917,447 | 06/29/99 | Wang et. al | 342 | 383 |

FOREIGN PATENT DOCUMENTS

| | | Document | Date | Name | Class | Sub |
|-----|---|----------|------|------|-------|-------|
| · : | | Number | | | | Class |
| | - | | | | · | |

OTHER DOCUMENTS (including Author, Title, Date, Pertinent Pages, etc.)

| nVO | Chiba, Isamu et. al, "Digital Beam Forming (DBF) Antenna System for Mobile Communications", IEEE AES Systems Magazine, Sept. 1997, pp. 31-41. | | | | |
|----------|--|--|--|--|--|
| | Miura, Ryu et. al, "A DBF Self-Beam Steering Array Antenna for Mobile Satellite Applications Using Beam-Space Maximal-Ratio Combination", IEEE Trans. On Vehicular Technology, vol. 48, no. 3, May 1999, pp. 665-675. | | | | |
| | Sato, Kazuo et al., "Development And Field Experiments of Phased Array Antenna For Land Vehicle Satellite Communications", IEEE Antennas and Propagation Society International Symposium, 1992, July 1992, vol.2, pp. 1073-1076. | | | | |
| | Sakakibara, Kunio et. al, "A Two-Beam Slotted Leaky Waveguide Array for Mobile Reception of Dual-Polarization DBS", IEEE Transactions on Vehicular Technology, vol. 48, no. 1, Jan. 1999, pp. 1-7 | | | | |
| a Vm | Suzuki, R. et. al, :Mobile TDM/TDMA System With Active Array Antenna", Global Telecommunications Conference, 1991; Globecom '91, vol. 3, Dec. 2-5, 1991, pp. 1569-1573. | | | | |
| Examiner | N. VO Date Considered 3/24/03 | | | | |

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